BRILLIANT SOLAR HALO AT KINGSTON, JAMAICA, MAY 24, 1919.

On the morning of the 24th of May at about 9 a. m. there appeared a very fine, brilliant and complete solar halo over Kingston. The prismatic colors from red to green, were distinct, but I could not discern any blue; the light there merged into white. I took 23 angular measurements (in a vertical plane) across the diameter

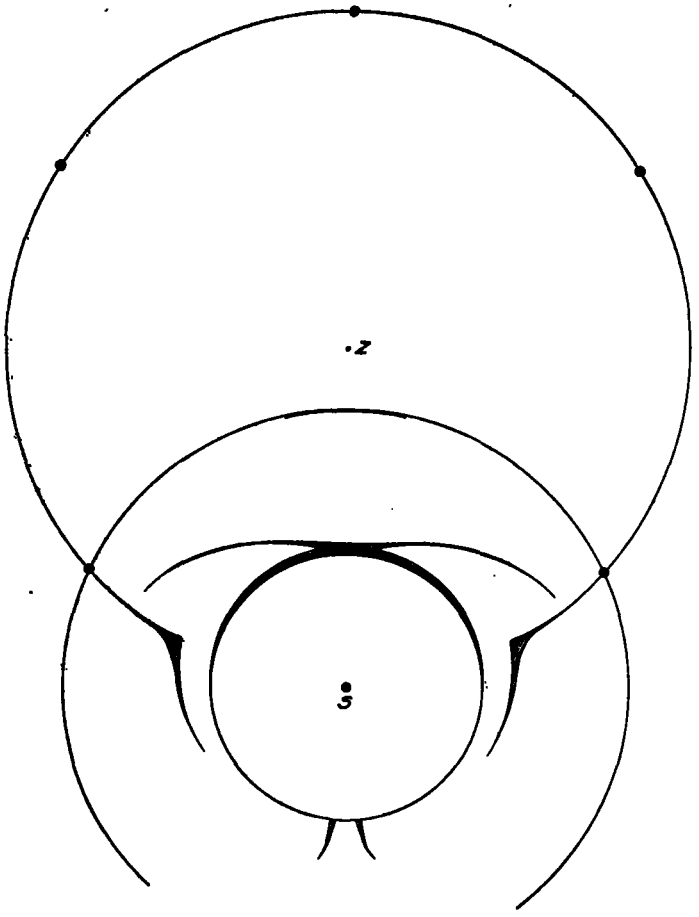

FIG. 1.—Solar halo phenomena, 8:25 a. m., May 14, 1919, Tatoosh Island, Wash., observed by R. C. Mize.

of the complete ring from centers of red to red, from about 10 a. m. and derived a mean radius of 22° 26′. The sun's altitude was then about 70°. I have not allowed for atmospheric refraction, for the lower edge of the ring, being of altitude of about some 50°, would be affected by barely 1′ of arc. There were then very thin cirrus stripes and cirro-stratus with a trace of cirro-cumulus from a west-southwesterly direction. The moon in the southwest was fairly visible through the veil of cirrus. I may state that within the area of the ring the clouds appeared mottled, and resembled altogether, cirro-cumulus, but this must have been owing to the intensity of light. The central area was considerably darker than the outside. Immediately exterior to the ring the cirrus stripes began to be clearly visible. There was also passing some lower cloud (fracto-cumulus) with an easterly direction. The barometer was normal; temperature of air 87° at 10 a. m.; humidity 64 per cent; wind southeast 15 miles. There was also a secondary concentric ring, but a sector near the horizon of only about 45° arc. I took four angular measures of this from the sun and obtained a mean result of 47° 4′ radius; the lower edge was 22° above the horizon; the correction for atmospheric refraction would be only about 2′. The halo almost completely disappeared about 1 p. m., lasting about four hours. I noted near 1 p. m. that the

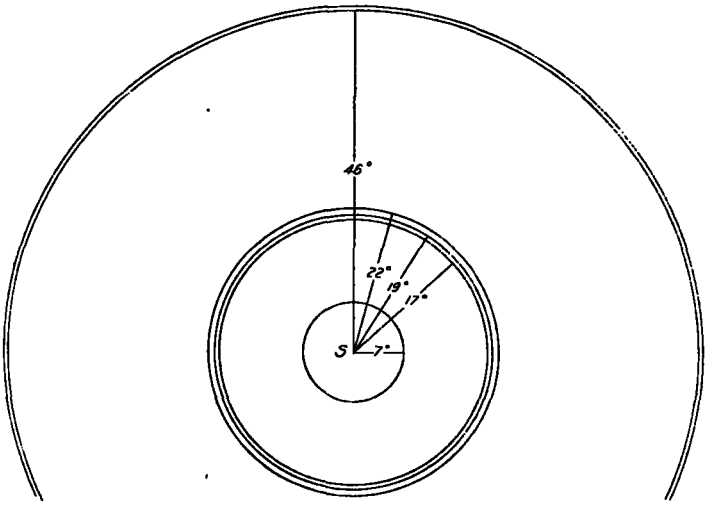

FIG. 2.—Quintuple solar halos observed at 1:35 p. m., May 26, 1919, by J. W. Brush.

fading away of the halo appeared on the cirrus stripes only, there was then some feathery cirrus, but the halo did not show up as these latter developed.—*J. F. Brennan.*

QUINTUPLE SOLAR HALOS.

Four colored halos and one white one were observed at 1:35 p. m., May 26, 1919. (See fig. 2.) They were of about 7°, 17°, 19°, and 22°, and 46° radius. All four smaller ones were colored bright enough to see real plain; the 46°-halo, in double lines, was white and dim. I have never seen more than 2 complete and 2 short arcs at once before. I got their size as best I could with crude construction of my own, then with compass and stand I made an illustration on the place of observation.—*Judson W. Brush.*